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Juha Marila

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WARE FRESSOLA VAN DER SLUYS & ADOLPHSON, LLP

BRADFORD GREEN, BUILDING 5

755 MAIN STREET, P O BOX 224

MONROE, CT 06468

EXAMINER

AUGUSTINE, NICHOLAS

ART UNIT

PAPER NUMBER

2179

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/749,813

Applicant(s)

MARILA ET AL.

Examiner

NICHOLAS AUGUSTINE

Art Unit

2179

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 May 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/ICE)
- Paper No(s)/Mail Date 4/7/08
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

- A. This action is in response to the following communications: Request for Continued Examination filed 05/30/2008.
- B. Claims 1-29 remains pending.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 05/30/2008 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-29 are rejected under 35 U.S.C. 102(e) as being unpatentable over Dostie et al. (US Pub 2004/0021691).

As to independent claims 1 and 12, Dostie teaches a device (e.g. method, device, etc), for inputting, comprising: a display (fig. 1); and a memory (fig. 1) comprising a first set of characters of a character set (fig.3; highlighted characters are part of a first set of characters which are from the English character set), said first set of characters comprising at least two characters (fig. 3, highlighted characters "TYSD"; par [0080], lines 12-21), and a second set of characters of said character set (fig.3; the non highlighted characters are part of the second set of characters from the English character set), said second set of characters comprising at least two characters (fig. 3, the remaining characters), wherein the characters in the first set of characters are statistically more likely to be selected in successive order than the characters in the second set of characters (par.64-65; par.85); wherein said display is adapted to display, for selection of which character to input, the first set of characters only (par.64; wherein the characters of the first set are distinguished separately from the second set; distinguishing in a variety of ways such as (1): highlighting/visual attribute and (2) being displayed in a list separate from qwerty graphic keyboard; par.103).

As to dependent claims 2, 13 and 22, Dostie teaches the device is adapted to select any desired one of the displayed characters if said desired character exists in the displayed first set of characters (fig. 3).

As to dependent claims 3, 14 and 23, Dostie, it appears that if the desired character is not in the displayed first set, the system would display more of the remaining character for selection (par.64).

As to dependent claims 4, 15 and 24, In light of the rejection set forth in claim 3, user may select any desired one of the displayed characters if said desired character exists in the displayed second set of characters (par.64).

As to dependent claim 5, Dostie teaches the device of claim 1 comprising a character set switch for replacing the currently displayed set of characters with another set of characters (par.80; changing character sets. par.64; changing set of characters on display of graphic keyboard).

As claim to dependents 6, 17 and 25, Dostie does not specifically in detail mention the device is adapted to cluster, on the display for selection, characters within the first set of characters, so that characters that are statistically more likely to be selected in successive order appear closer to each other than characters that are statistically less

likely to be selected in successive order (par.103; shows how characters are arranged in a list which represents set of characters from first set of characters).

As to dependent claims 7, 18 and 26, Dostie teaches the device is adapted to display the characters in the first set of characters on the display in QWERTY-format (fig.3; par.3).

As to dependent claims 8, 19 and 27, Dostie does not specifically in detail teach the device is adapted to display the characters in the first set of characters on the display in alphabetical order (figure 29; list of characters "d,k,n,r,v" are in alphabetical order).

As to dependent claim 9, Dostie further teaches the display is a touch-sensitive display (par [0079], lines 1-6).

As to dependent claims 10 and 16, Dostie further teaches the first set of characters and the second set of characters are based on a specific language used for inputting information (par [0080]).

As to dependent claims 11, 20 and 28, Dostie further teaches the device is embodied as a mobile terminal for a mobile telecommunications system (par [0073], lines 13-20).

As to independent claim 21 (Current Amended), Dostie teaches a computer program product comprising program code stored in a memory (fig. 1, label 16, par [0067], lines

6-20) for generating a virtual keyboard on a display (par [0064], lines 15-24), when said program code is executed by a processor (fig. 1, labels 12, 26; par [0069], lines 1-7) the program code comprising: for defining a first set of characters of a character set comprising at least two characters (fig. 3, highlighted characters "TYSD"; par [0080], lines 12-21); for defining a second set of characters of a character set comprising at least two characters (fig. 3, the remaining characters), wherein the characters of the first set of characters are statistically more likely to be selected in successive order than the characters of the second set of characters (par [0064], lines 1-5; par [0085]); wherein the display is adapted to display, for selection of which character to input, the first set of characters only (par.64; wherein the characters of the first set are distinguished separately from the second set; distinguishing in a variety of ways such as (1): highlighting/visual attribute and (2) being displayed in a list separate from qwerty graphic keyboard; par.103).

As to independent claim 29, Dostie teaches a device for inputting information (fig. 1), comprising; means for displaying characters (fig. 1); and means for storing a first set of characters (fig. 1), said first set of characters of a character set comprising at least two characters (fig. 3, highlighted characters "TYSD"; par [0080], lines 12-21), and a second set of characters of said character set, said second set of characters comprising at least two characters (fig. 3, the remaining characters), wherein the characters in the first set of characters are statistically more likely to be selected in successive order than the characters in the second set of characters (par [0064], lines 1-5; par [0085]); wherein

the display is adapted to display, for selection of which character to input, the first set of characters only (par.64).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 6, 17 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dostie in view Pu et al. (US Patent 7,152,213), hereinafter "Pu".

As claim to dependents 6, 17 and 25, Dostie does not specifically in detail mention the device is adapted to cluster, on the display for selection, characters within the first set of

characters, so that characters that are statistically more likely to be selected in successive order appear closer to each other than characters that are statistically less likely to be selected in successive order;

However, in the same field of virtual keyboard input (Pu: col. 10, lines 55-57), Pu teaches the device is adapted to cluster, on the display for selection, characters within the first set of characters, so that characters that are statistically more likely to be selected in successive order appear closer to each other than characters that are statistically less likely to be selected in successive order (col. 4, lines 29-38; col. 2, lines 50-63; fig. 7A- 7C; col. 9, lines 29-40).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Dostie by the device is adapted to cluster, on the display for selection, characters within the first set of characters, so that characters that are statistically more likely to be selected in successive order appear closer to each other than characters that are statistically less likely to be selected in successive order as taught by Pu in order to provide an improved user interface used to input data without the use of a standard keyboard were the data that is entered is selected from a predefined list or group determining by the relative frequency of each valid selection in the predefined list and presenting those valid selections with the highest frequency in a position that minimizes the number keystrokes required for data entry (Pu: col. 2, lines 46-57).

(Note :) It is noted that any citation to specific, pages, columns, lines, or figures in the prior art references and any interpretation of the references should not be considered to be limiting in any way. A reference is relevant for all it contains and may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art. In

re Heck, 699 F.2d 1331, 1332-33, 216 USPQ 1038, 1039 (Fed. Cir. 1983) (quoting In re Lemelson, 397 F.2d 1006, 1009, 158 USPQ 275, 277 (CCPA 1968)).

Response to Arguments

Applicant's arguments filed 05/30/2008 have been fully considered but they are not persuasive. After careful review of the amended claims (given the broadest interpretation) and the remarks provided by the Applicant along with the cited reference(s) the Examiner does not agree with the Applicant for at least the reasons provided below:

A1. Applicant argues that Dostie does not disclose or suggest grouping, organizing or even dividing characters of a character set into sets of characters.

R1. Examiner does not agree, Dostie provide throughout the disclosure various means of grouping, organizing or even dividing characters of a character set into sets of characters; (par.64, 103; figures 3 and 29).

A2. Applicant argues that Dostie does not teach a system which groups the characters of a character set into a first set of characters and a second set of characters, wherein the first set of characters are statistically more likely to be selected in successive order than the characters in the second set of characters.

R2. Examiner does not agree, Dostie provide full detail information supporting "a system which groups the characters of a character set into a first set of characters and a second set of characters, wherein the first set of characters are statistically more likely to be selected in successive order than the characters in the second set of

characters" (par.65; wherein described is the part of the system which logically predicts a set of first characters from the character set to display to the user because these characters are most likely to be chosen from the character set and further in par.64 the first and second set of characters can be shown together or separately in groups (list)).

A3. Applicant argues against Buxton.

R3. Examiner notes these arguments are moot in view of new grounds of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Inquires

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nicholas Augustine whose telephone number is 571-270-1056. The examiner can normally be reached on Monday - Friday: 7:30- 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weilun Lo can be reached on 571-272-4847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nicholas Augustine/
Examiner
Art Unit 2179
August 15, 2008

/Ba Huynh/
Primary Examiner, Art Unit 2179